

**STUDY MUSCLE STIMULATION SINUSOIDAL THE MODULATED CURRENT
FUNCTIONAL STATUS BOYS WITH DISORDERS OF CEREBRAL PALSY**

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The continuous increase in the number of children with neurological disorders and the significant social consequences of the define cerebral palsy (CP) as a major medical and social problem. In the structure of child disability in the Russian Federation, damage to the nervous system is 60%. Based on neurophysiological mechanisms for children with cerebral palsy are disorders of coordination of muscular activity, due to an abnormality of muscle tone, reciprocal innervation, pathology and friendly movements. The wide variability of the clinical picture for children with cerebral palsy due to differences in the prevalence and severity of lesions of the nervous system, especially the maturation of the brain in pathological conditions, the type of coordination of motor activity that produces the abnormally developing brain. In most cases, in cases of cerebral palsy there is not a local movement disorders, and generalized lesions, manifested pathological type of coordination of movements [1].

The basis for children with cerebral palsy is a violation of the formation of the brain in the early stages of ontogenesis, which may be the result of a number of adverse effects. The greatest importance is attached to influence of harmful factors during pregnancy and childbirth, and early postnatal brain damage, which arise due to infectious diseases, traumatic brain injury and other pathological conditions [2].

Pathology of osteoarticular system in patients with cerebral palsy due to a violation of the physiological relations of muscles and ligament-articular apparatus due to abnormal effects tonic of the nervous system, discoordinated muscle activity. The most common form of cerebral palsy – spastic diplegia, known in literature also under the name "little's disease". The prevalence of motor disorders is tetraparesis, which affects the legs more than the hands. The degree of social adaptation, it can be healthy with normal mental development and good function of the hands [1].

Along with physiotherapy in patients with cerebral palsy are widely used physiotherapy treatments that not only improve the function of the neuromuscular system, and enhance the overall reactivity of the organism [3, 4].

The physiotherapeutic treatment of cerebral palsy include: balneotherapy, thermotherapy, mud applications, electrophoresis of drugs, electrical stimulation of muscles and nerves, electrosleep, magnetotherapy, ultrasound therapy, etc. One of the main mechanisms of action of the modulated current (SMC) is a pronounced effect on the nervous system. It is the irritant action on the nerve endings in the skin and muscle proprioceptive apparatus, the autonomic ganglia and nerves, the upper autonomic centers and the cerebral cortex.

Numerous studies have shown the improvement of the functional state of the Central and peripheral parts of the nervous system under the influence of SMT and clinical observations clearly revealed an analgesic effect.

Muscle stimulation sinusoidal modulated current (SMC) contributes to the improvement of their trophism, blood circulation, has analgesic effect, stimulates the weakened muscles and reduce spastic tone.

The aim of this work was to study muscle stimulation sinusoidal modulated current on the functional state of boys with disorders of cerebral palsy.

Statistically significant increase in emotional state, cognitive indicators of attention, memory, logical thinking with stimulation of the muscles of the sinusoidal modulating current.

Keywords: sinusoidal modulated current, cerebral palsy, logical thinking, selectivity, concentration of attention, short-term memory, well-being, activity, mood, anxiety.

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